

# WIRELESS TECHNOLOGIES

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AZERBAIJAN

Research Objectives .....	3
Methodology .....	3
Communication market overview .....	4
Country Profile .....	4
The Internet in Azerbaijan.....	4
Cellular Companies .....	6
Wireless Services .....	9
3G.....	9
4G.....	9
WiMAX.....	10
Wireless Products and Offers .....	11
Azercell.....	11
Devices.....	11
Tariffs .....	13
Coverage.....	15
Bakcell .....	16
Devices.....	16
Tariffs .....	18
Coverage.....	21
Nar Mobile.....	22
Devices.....	22
Tariffs .....	23
Coverage.....	26
Sazz .....	27
WiMAX devices.....	27
Tariffs .....	28
Coverage.....	28
AzEuroTel.....	28
WiMAX Tariffs.....	29
Coverage.....	29
CATEL .....	30
Products Comparison and Recommendations .....	31
Conclusion.....	32
Figure 1- Azercell Subscribers .....	6
Figure 2- Internet Technologies in Azerbaijan.....	9
Figure 3- Coverage Map for Azercell 3G.....	15
Figure 4- Coverage Map for Bakcell 3G .....	21
Figure 5- Coverage Map for Sazz WiMAX .....	28
Table 1- Internet users in Azerbaijan.....	5
Table 2- Summary of 3G Operators in Azerbaijan .....	31
Table 3- Product Comparison for Unlimited 3G Offers in Azerbaijan .....	32
Table 4- Scoreboard for 3G Operators in Azerbaijan.....	32

## Research Objectives

Research Objectives include:

- Determine the market potential of consumer wireless technologies in Azerbaijan
- Identify the current major players in the market and assess their products
- Evaluate potential prospects for penetrating the market and make preliminary recommendations

## Methodology

Sources of data and information include:

- Companies' websites, press releases and advertising campaigns
- Government Reports which are available for public review
- Trusted websites including Azerbaijan's state news agency and respected local media
- Trade Associations, Directories and Publications
- One on one telephone interviews with locals to make sure no information is missing

## Communication market overview

### Country Profile

- **Full name:** Republic of Azerbaijan
- **Capital:** Baku
- **Population:** 9 million (89th)
- **Demographics:** 52% Urban / 48% Rural
- **Population growth rate:** 0.85% (worldwide: 1.09%)
- **Area:** 86,600 sq km (114th)
- **Major language:** Azeri, Russian
- **Major religion:** Islam (95%)
- **Life expectancy:** 68 years (men), 74 years (women)
- **Independence from the Soviet Union:** 1991
- **Monetary unit:** 1 manat (AZN) = 100 kopecks; 1 EUR = 1.02 AZN
- **Main exports:** Oil, oil products
- **GNI per capita:** US \$5,330 (World Bank, 2010)
- **Internet domain:** .az
- **International dialling code:** +994
- **VAT rate:** 18%

4,746,800 Internet users as of June 2012, 50.0% penetration.

963,100 Facebook users on 31 December 2012, 10.1% penetration rate.

### The Internet in Azerbaijan

The Internet in Azerbaijan is growing, supported by a national strategy to develop the country into an Information and Communication Technology (ICT) hub for the region.

The Internet in Azerbaijan remains largely free from direct censorship despite the government's heavy-handed approach to political opposition.

However, In 2010, RSF (Reporters Without Borders) said it found evidence of a "vibrant and growing" online media, but criticised the government for failing to provide citizens with affordable, high-speed internet access.

During the Soviet era, Azerbaijan was a major centre for IT development, particularly in the area of process control systems. This legacy left the country with a reasonably large and well-developed technical infrastructure.

Year	Users	Population	Penetration rate	GDP p.c.*
2000	12,000	8,347,200	0.1 %	US\$ 410
2007	829,100	8,448,260	9.8 %	US\$ 3,759
2008	1,500,000	8,177,717	18.3 %	US\$ 5,213
2009	2,444,600	8,238,672	29.7 %	US\$ 4,807
2010	3,689,000	8,303,512	44.4 %	US\$ 5,729

**Table 1- Internet users in Azerbaijan**

*AzTelekom* is the state-owned telecom provider, which handles the fixed line telephony and also acts as a commercial ISP.

*Delta Telecom* (previously *AzerSat*) is the main ISP in the country, supplying international connectivity to at least 90–95 percent of all users and sells international traffic to almost all ISPs.

*AzerOnline* is one of the major public telecom operators, which is funded predominantly by the largest mobile operator, *AzerCell*.

Azerbaijan economy has been markedly stronger in recent years and the country has been making progress in developing its telecoms sector. Nonetheless, it still faces problems such as poor infrastructure and an immature telecom regulatory regime.

The *Ministry of Communications & Information Technologies (MCIT)* is both a policy-maker and regulator, as well as being an operator through its role in *AzTelekom*.

A boom in oil and gas exports has boosted the economy, reducing the country's dependence on international aid.

The cost of Internet service remains high for the average citizen but it has been steadily decreasing within past years.

For instance according to a report published in 2010 a DSL connection of 64 Kbps costs around USD 40–50 per month, and unlimited monthly access costs around USD 35. For comparison, the average salary in the country is around USD 300 per month.

## Cellular Companies

### Azercell Azercell

Azercell Telecom is the major mobile operator holding more than 57.6% of the market share in mobile telecommunications with a network covering 80 percent of Azerbaijan's territory and 99.7 percent of the populated area.

The company was established in 1996 a joint venture of Turkcell and the Ministry of Communications of Azerbaijan Republic.

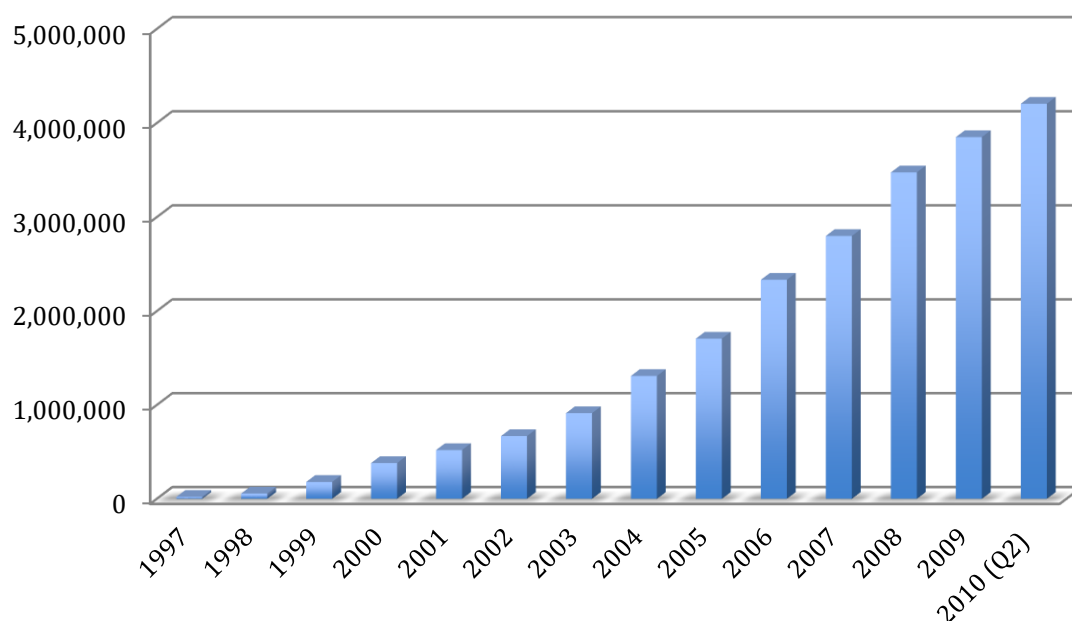


Figure 1- Azercell Subscribers

### Bakcell bakcell

Bakcell is the first cellular operator in Azerbaijan.

It was established in 1994 as a Joint Venture between GTIB and the Ministry of Communication, but it has been, but no fully, privatised since 2004.

According to the head of Bakcell, the subscriber base of the company grew by 15 per cent in 2012 and 40 per cent of the mobile internet market belongs to Bakcell.

Bakcell's share in the Azerbaijani mobile communications market is 35 per cent with the number of active subscribers exceeding 2.6 million.

### Nar Mobile

Nar Mobile is a brand for commercial activities of Azerfon, a mobile telecommunications company, which was the first mobile operator in Azerbaijan to have offered 3G network in 2009.

In 2006, Azerfon was granted a license as the third GSM operator in the country.

Their network covers 80% of Azerbaijan with 2 million subscribers and 400,000 regular 3G services customers.

In 2009 a non-stock partnership agreement was signed between Azerfon and Vodafone.

According to [Spiegel](#) and [Radio Free Europe](#) the company is linked to the family of the president, Ilham Aliyev.



Aztrank was established in 1996 but since 2005 it has been the operator of the wireless digital CDMA 2000 (Code Division Multiple Access) telecommunication services in Azerbaijan.

CDMA 2000 is a family of 3G mobile technology standards, which uses CDMA channel access, to send voice and data between mobile phones and cell sites.

As the company's website seems to be [hacked](#) as of 04/05/2013, not reliable information is available. Nevertheless, Aztrank is not considered a major internet provider for mobile internet users.



Caspian American Telecom LLC (CATEL) was established as a joint venture between the Azerbaijan government and US consortium Omni Communications.

Catel (Fonex) is an entirely CDMA based mobile operator and also provides Internet services and it claims to be the first CDMA operator in Azerbaijan. With only 22000 subscribers (as of 2007), it is not considered as a big player in the market.

The company is equipped with the equipment of a Chinese company called Huawei.



AzQtel" LLC was founded in 2005 and has been operating under brand "Sazz 4G". It has been offering WiMAX internet since 2008 with a "single tariff for all" policy.



AzEuroTel is a communication service provider for corporate and private users with a range of telecommunication services such as WiMAX.

AzEuroTel and Adanet have satellite channels to Russia.

The company has been fully owned by Azerbaijan state.

*\* Not a cellular company.*



## Wireless Services

### 3G

In December 2009 Azerfon (Nar Mobile) released its 3G (UMTS) network as the first GSM operator in Azerbaijan to offer 3G services.

In 2011 Azercell and Bakcell, the two largest mobile operators in terms of subscribers, were awarded 3G licences by the Ministry of Communications and Information Technology (MCIT).

At the same time, the ministry has requested all three mobile operators to submit proposals for providing Long Term Evolution (LTE) mobile broadband services.

As of [February 2012](#), only 14.2 percent of Azercell and 28 percent of Bakcell users are connected to 3G.

According to [a survey](#) in 2012, the penetration rate of 3G technology is 20%, while 20% of 3G users are in Baku.

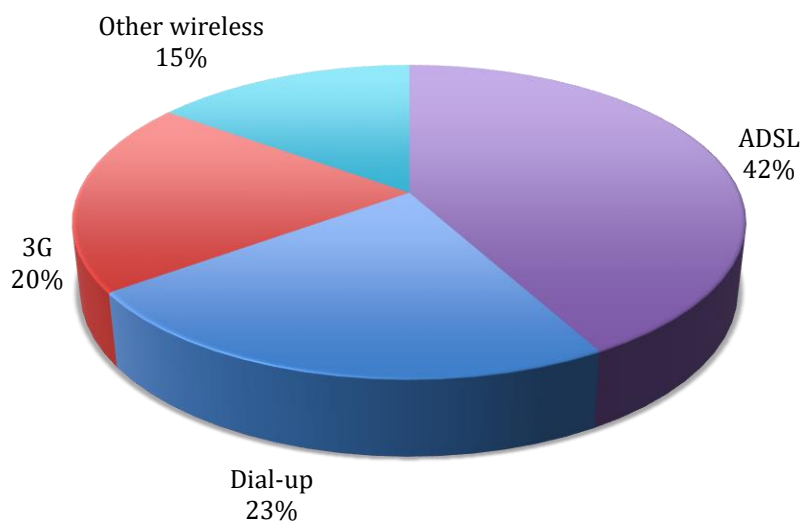


Figure 2- Internet Technologies in Azerbaijan

### 4G

On 17 February 2012, the biggest mobile operator in Azerbaijan, Azercell, received [principal consent](#) from the government to launch the 4G system.

In May 2012, Azerbaijan's biggest mobile operator Azercell [launched 4G LTE](#).

The company was the major sponsor of Eurovision song contest in Azerbaijan, and [launched](#) its 4G services ahead of the contest in May 2012. However, this technology has not been widely applied or promoted.

At the initial stage Azercell 4G network will cover the downtown area and the Seaside National Park in Baku. The network will operate on 1800 MHz frequency. Azercell's intention has been to fully cover the 4G services in Baku until May 2013. The second region where the 4G network would be deployed is the Nakhichevan Autonomous Republic.

The Ministry of Communications and Information Technology decided to give 4G license to one of the three mobile operators who had applied for it. The others, Bakcell and Azerfon (Nar Mobile), are waiting for still this good news.

The head of Bakcell [announced](#) in January 2013 that they were in negotiations with the Communications and Information Technologies Ministry on deployment of 4G network and launch of mobile number portability service (MNP), the introduction of which is expected to be in 2013.

Bakcell offers New iPads with 4G technology to its customers, but it is unclear whether in reality its customers can benefit from this advanced technology or not.

## WiMAX

AzQtel, commercially known as Sazz 4G is the major player in WiMAX market, a young but diminishing market.

Jayhun Mollazade, CEO of Sazz [announced](#) in April 2013 that the company's plans to move from WiMAX to towards TDD LTE technology as he had hinted [earlier in the year](#). He said that the motive for this decision was the fact that WiMax capacity is running out for AzQtel. He said that his company was considering bids from vendors to replace the kit with TDD LTE.

He also added that WiMAX still has three years of life in rural areas and 60 smaller towns but for the capital city and other cities the company is moving to LTE.

## Wireless Products and Offers


### Azercell


All modems have the following characteristics in common:

- MicroSD card: Supported
- SMS function: Supported
- SIM Card: Included
- OS: Windows 2000, Windows 7, XP & Vista, Mac OS

### Devices


#### 3G

<b>Device Name</b>	3G SIM Card	
<b>Network standards</b>	N/A	
<b>Download speed</b>	Up to 7.2 Mb/s	
<b>Upload speed</b>	Up to 5.76 Mb/s	
<b>Set Price</b>	N/A	
<b>Internet Package Price</b>	Varies ( <a href="#">Internet packages</a> )	
<b>Offer</b>	N/A	

<b>Device Name</b>	3GMAX modem (ZTE MF190)	
<b>Network standards</b>	HSUPA/HSDPA/WCDMA/EDGE/GPRS/GSM	
<b>Download speed</b>	Up to 7.2 Mb/s	
<b>Upload speed</b>	Up to 5.76 Mb/s	
<b>Set Price</b>	29 AZN (exc. VAT) Free if bought with an unlimited tariff	
<b>Internet Package Price</b>	Varies ( <a href="#">Internet packages</a> )	
<b>Offer</b>	N/A	

According to subscriber's choice one of existing *Internet packs* will be activated on number included in modem set. This number can be used for Internet and SMS service only.

#### 4G


<b>Device Name</b> <b>Network standards</b>	4G modem (ZTE MF820D) LTE/DC-HSPA+/HSPA+/UMTS	
<b>Download speed</b> <b>Upload speed</b>	Up to 100 Mb/s Up to 50 Mb/s	
<b>Set Price</b> <b>Internet Package Price</b>	149 AZN (exc. VAT) 45 AZN per month (Unlimited)	
<b>Offer</b>	1 month free	

*The Unlimited Internet pack will be activated on number included in modem set. This number can be used for Internet and SMS service only.*

Unlimited 4G Internet pack can be used at 2G/3G networks as well. However, 2G/3G Internet packs cannot be used at 4G network.

The connection will be switched to EDGE after traffic exceeds 50 GB.

#### **MiFi (Mobile WiFi)**

<b>Device Name</b> <b>Network standards</b>	MiFi mobile router (ZTE MF60) GSM/GPRS/EDGE/HSPA+/ HSUPA/HSDPA/UMTS/WCDMA	
<b>Download speed</b> <b>Upload speed</b> <b>Router capability</b>	Up to 21.6 Mb/s Up to 5.76 Mb/s Simultaneous connection for up to 5 devices	
<b>Set Price</b> <b>Internet Package Price</b>	90 AZN (exc. VAT) Varies ( <a href="#">Internet packages</a> )	
<b>Offer</b>	5 GB free (for current and next billing period)	

This router is a 3G-supported mobile router.

## Tariffs

The contract duration of bundles is not specified.

### **4G Users:**

Bundle name	Price (monthly)	Traffic	Validity period
4G Unlimited	45AZN	unlimited *	30 days

\* After reaching 50 GB, the Internet usage is free until the end of the billing period and the EDGE speed - up to 128 Kb/s is applied during this time.

### **Monthly for 3G and MiFi users:**

#### *Unlimited*

Bundle name	Price (per validity period)	Traffic	Validity period
Unlimited monthly *	9 AZN	4 GB	30 days
Unlimited 1 hour **	0.4 AZN	N/A	1 hour
Unlimited 3 hours **	1 AZN	N/A	3 hours
Weekend	2.4 AZN	N/A	Saturday & Sunday
Night	0.99 AZN	N/A	00:00 - 08:00

\* After reaching 4 GB, the Internet usage is free until the end of the billing period and the EDGE speed - up to 128 Kb/s is applied during this time.

\*\* Internet speed decreases to 64Kb/s for the next 15 min after package duration ends. The traffic is free of charge during this time.

#### *Traffic based*

Traffic	Price (monthly)	After exceeding * (per GB)
30 MB	1 AZN	0.04 AZN
100 MB	2 AZN	0.04 AZN
300 MB	3 AZN	0.04 AZN
1 GB	10 AZN	0.02 AZN
5 GB	20 AZN	0.01 AZN
15 GB	30 AZN	0.005 AZN

\* For postpaid users

### **Daily for 3G and MiFi users:**

Traffic	Price	Validity period
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500 MB	1.20 AZN	24 hours
500 MB	1.20 AZN	24 hours (with auto-renewal)

For SimSim subscribers if the traffic in MB packages (30 MB, 100 MB, 300 MB) is used before the end of the 30-day period, the internet service will be suspended and the renewal of subscription will be needed.

In GB packages (1 GB, 5 GB, 15 GB) if the traffic is used before the end of the 30-day period, the internet service will be free of charge till the end of expiry date but the speed for extra traffic will be different:

- 1 GB: the GPRS speed (up to 64 Kbps)
- 5 GB: the EDGE speed (up to 128 Kbps)
- 15 GB: the EDGE speed (up to 128 Kbps)

Unused Internet traffic is not carried over to the next month.

#### Notes

- The company runs a variety of discount campaigns and offers.
- Corporate subscribers usually benefit from 20% discount.
- The company currently runs “[Unlimited Internet for 9 AZN](#)” campaign, which means a user can get 4 GB each month during 10 billing periods by paying 9 AZN per month. This offers includes a 3GMAX modem for free.
- Other campaigns are: Hour pack, weekend pack, and Night pack.
- Using Facebook, Twitter, and Twitter SMS is free of charge for all mobile subscribers.

## Coverage

Coverage Map comes below:

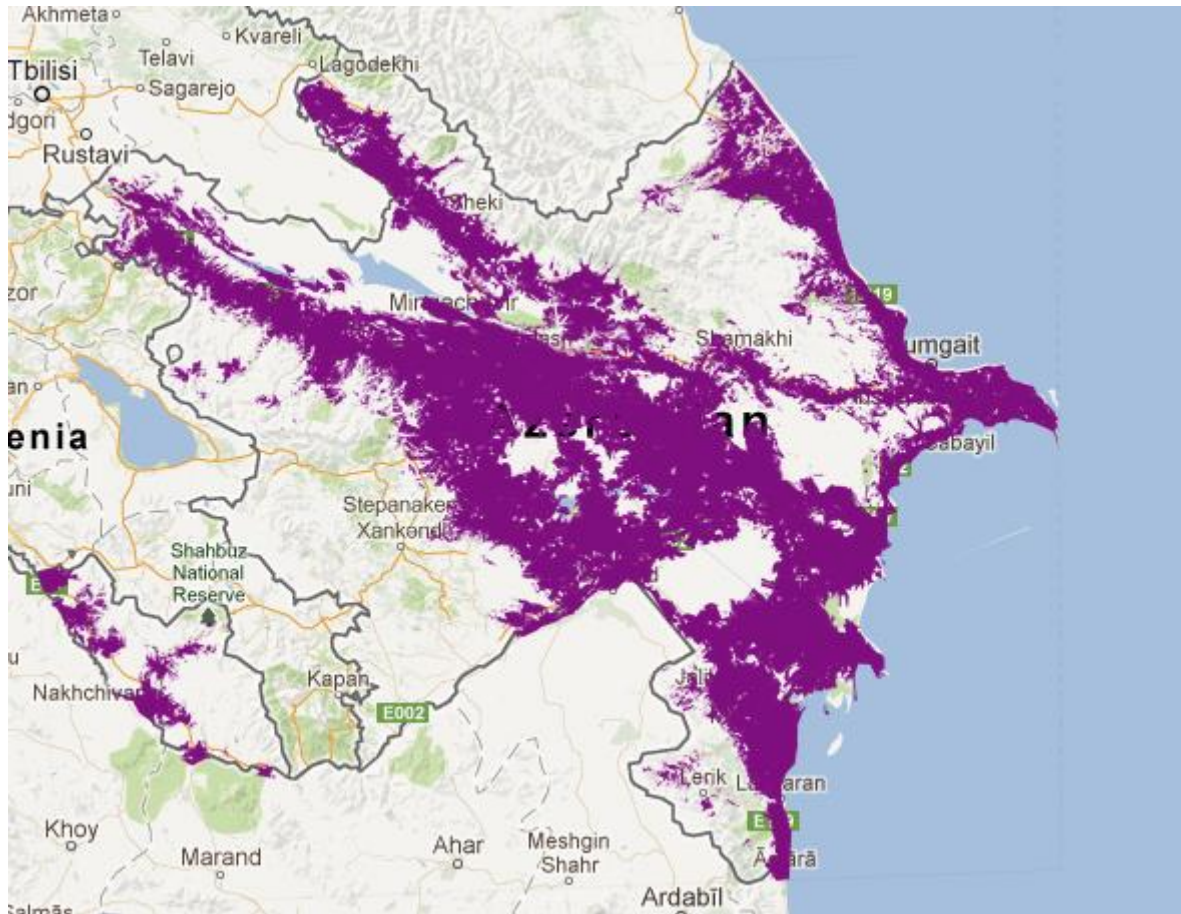


Figure 3- Coverage Map for Azercell 3G


## Bakcell


### Devices


#### 3G Devices

All modems have the following characteristics in common:

- MicroSD card: Supported
- SMS function: Supported
- SIM Card: Included

<b>Device Name</b>	<a href="#">3G SIM Card</a>	
<b>Download speed</b> <b>Upload speed</b>	Up to 21 Mbps HSPA Up to 5.2 Mbps HSPA	
<b>Set Price</b> <b>Internet Package Price</b>	N/A <a href="#">Sür@ Data SIM</a> (6 AZN montly) and <a href="#">more</a>	
<b>Offer</b>	N/A	

<b>Device Name</b>	<a href="#">Sür@ Data Kart (USB)</a>	
<b>Download speed</b> <b>Upload speed</b>	Up to 21 Mbps HSPA Up to 5.2 Mbps HSPA	
<b>Set Price</b> <b>Internet Package Price</b>	6 AZN (incl. VAT) <a href="#">Sür@ Data Kart</a> (9 AZN montly) and <a href="#">more</a>	
<b>Offer</b>	N/A	

<b>Device Name</b>	<a href="#">Sur@t Wi-Fi-router</a> (3G/Wi-Fi router ZTE MF 30)	
<b>Network standards</b>	GPRS/EDGE/UMTS/HSDPA	
<b>Download speed</b> <b>Upload speed</b>	Up to 7.2 Mbps Up to 5.7 Mbps	
<b>Set Price</b> <b>Internet Package Price</b>	59 AZN (incl. VAT) Varies ( <a href="#">Internet packages</a> )	
<b>Offer</b>	1 month unlimited Internet – FREE	

#### 4G enabled devices

A free iPad will be offered for 4G subscribers



[iPad Mini wifi 4G 16 GB](#)

[iPad 4 Wi-Fi + 4G LTE \(16Gb\)](#)

[iPad 4 Wi-Fi + 4G LTE \(32Gb\)](#)

[iPad 4 Wi-Fi + 4G LTE \(64Gb\)](#)

iPad offers are exclusively for corporate clients including legal entities or individual entrepreneurs.

## Tariffs

The contract duration of bundles is not specified.

All prices are VAT inclusive.

### **Sür@ Data SIM**

Bundle name	Price (monthly)	Traffic	After exceeding 3 GB (per MB)
Sür@ Data SIM	6 AZN	3 GB *	0.01 AZN

\* After the traffic volume is reached to 7GB the connection speed will drop down to 64 kbit/s.

### **Sür@ Data Kart**

Bundle name	Price (monthly)	Traffic	After exceeding 7 GB (per MB)
Unlimited	9 AZN	Unlimited *	Free
3 GB	6 AZN	3 GB	0.01 AZN

\* After the traffic reaches to 7GB the connection speed will drop down to 64 kbit/s.

### **Sür@ 30 day Internet packages**

These packages are offered for mobile phones, tablets and laptops.

Bundle name	Price (monthly)	Traffic	Validity
25 MB	0.1 AZN	25 MB	1 day
40 MB	1 AZN	40 MB	30 day
120 MB	2 AZN	120 MB	30 days
360 MB	3 AZN	360 MB	30 days
600 MB	4 AZN	600 MB	30 days
Unlimited 1	9 AZN	unlimited *	30 days
Unlimited 2	22 AZN	unlimited **	30 days

\* Unlimited 1: After the traffic reaches to 2GB the connection speed will drop down to 64 kbit/s.

\*\* Unlimited 2: After the traffic reaches to 10GB the connection speed will drop down to 64 kbit/s.

### **Opera Mini**

Unlimited Internet with Opera Mini for 24+ hours or for 1 month.

Bundle name	Price	Traffic	Validity
Opera Mini 24+ hours	0.25 AZN	Unlimited browsing *	24+ hours
Opera Mini 1 month	2.5 AZN	Unlimited browsing *	30 days

All download, video/audio streaming, and instant messages will be charged according to your tariff plan.

This service is not available for subscribers who use BlackBerry packages.

### **Free Facebook**

Free access to [0.facebook.com](http://0.facebook.com) which has all features of [m.facebook.com](http://m.facebook.com). Update status, reading news feeds, marking or commenting posts, sending and replying to messages or writing on friends' walls are free, but viewing photos or videos will be charged according to the user's current tariff.

### **Blackberry**

Bakcell offers a variety of BlackBerry bundles to its CIN, Klass and Gold subscribers.

Bundle Name	Price (monthly)	Traffic	Validity period
Social 7	3.33 AZN	150 MB	7 days
Social 30	9.99 AZN	600 MB	30 days
Complete	13.99 AZN	1 GB	30 says
Business	18.99 AZN	2 GB	30 days
Unlimited	29.99 AZN	unlimited *	30 days

\* After the traffic reaches to 5GB the connection speed will drop down to 64 kbit/s.

After using bundle's traffic the user will be charged at 0.10 AZN per MB.

**4G enabled iPads Tariffs**

All subscribers to these tariffs will receive a free iPad corresponding to the bundle.

<b>Bundle Name</b>	<b>Price (monthly)</b>	<b>Traffic</b>	<b>Contract duration</b>
iPad min	50 AZN	unlimited	12 months
iPad min	40 AZN	unlimited	18 months
iPad 4, 16 GB	65 AZN	unlimited	12 months
iPad 4, 16 GB	50 AZN	unlimited	18 months
iPad 4, 32 GB	75 AZN	unlimited	12 months
iPad 4, 32 GB	55 AZN	unlimited	18 months
iPad 4, 64 GB	80 AZN	unlimited	12 months
iPad 4, 64 GB	60 AZN	unlimited	18 months

After the traffic reaches to 10 GB the connection speed will drop down to 64 kbit/s.

Remaining monthly SMS and Internet traffic are not accumulative and will not be transferred to the next month.

iPad offers are exclusively for corporate clients including legal entities or individual entrepreneurs.

## Coverage

Coverage Map comes below:

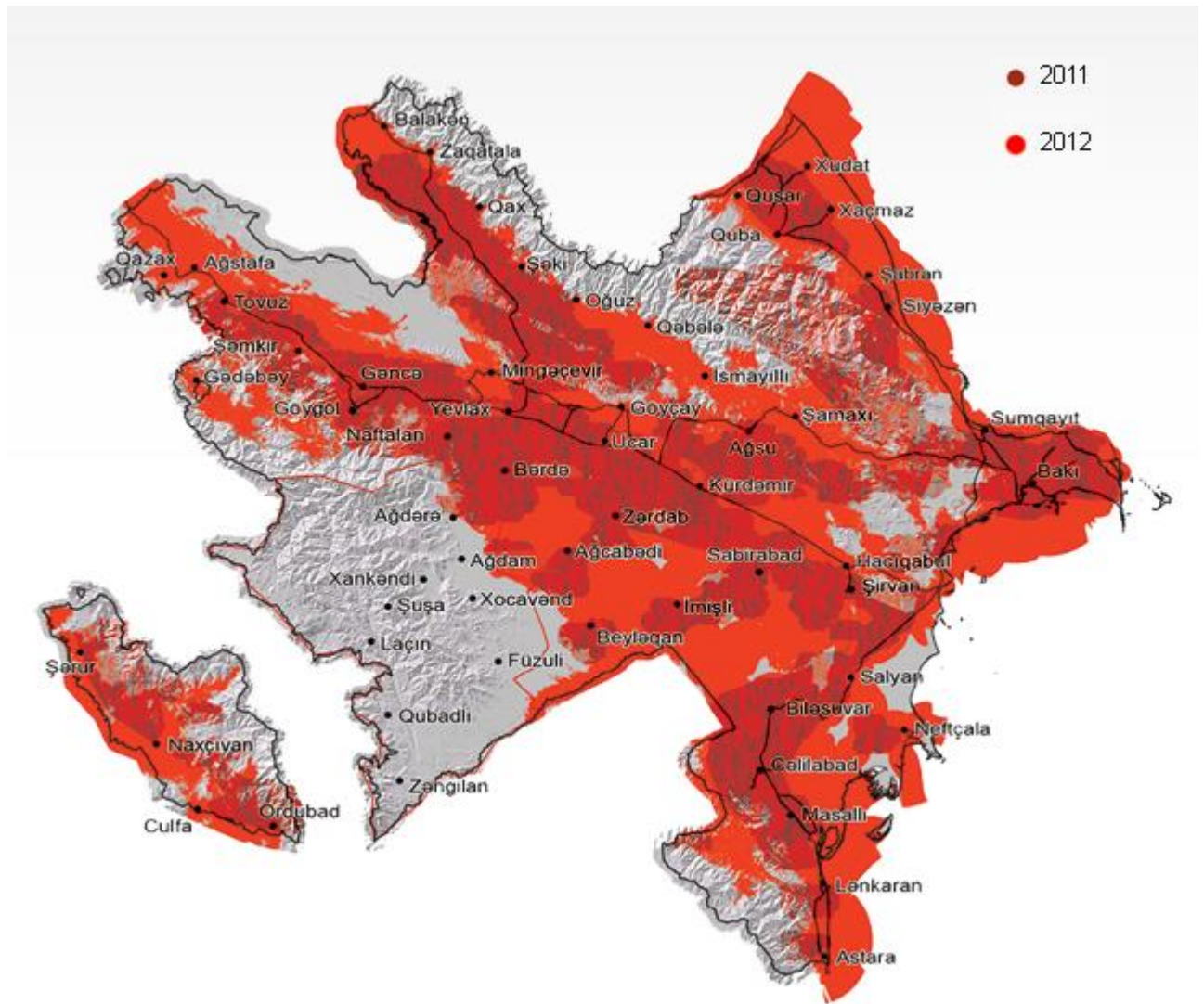




Figure 4- Coverage Map for Bakcell 3G

## Nar Mobile

### Devices

All 3G modems are provided with a 3G SIM card.

<b>Device Name</b>	3G SIM Card	
<b>Download speed</b>	Up to 1.2 Mbps	
<b>Upload speed</b>	-	
<b>Set Price</b>	Included in the price of mobile subscription	
<b>Internet Package Price</b>	Varies ( <a href="#">Internet packages</a> )	
<b>Offer</b>	The modem is Free if internet bundle is bought	

<b>Device Name</b>	Nar 3G Kit	
<b>Download speed</b>	Up to 1.2 Mbps	
<b>Upload speed</b>	-	
<b>Set Price</b>	20 AZN, Free if bought with an internet package	
<b>Internet Package Price</b>	Varies ( <a href="#">Internet packages</a> )	
<b>Offer</b>	The modem is Free if internet bundle is bought	

## Tariffs

The contract duration of bundles is not specified.

### **Unlimited**

Bundle name	Price	3G Threshold	Validity period
Daily	4 AZN	500 MB	24 hours
Monthly	20 AZN	15 GB	30 days

In case of exceeding quota threshold, the Internet speed is set to 128 Kbps till the current bundle expires.

### **Turbo Tariffs**

The validity period of Turbo bundles is 30 days and these bundles are exclusive for prepaid subscribers in active status.

Turbo bundles are divided into 2 types: the bundles for Voice Tariff users and the bundles for Nar3G data card users.

#### **Voice tariffs (for mobile phones):**

Bundle name	Price (monthly)	Traffic
TURBO XS	1 AZN	100 MB
TURBO S	2 AZN	250 MB
TURBO M	3 AZN	500 MB
TURBO L	5 AZN	1000 MB
TURBO XL	12 AZN	5000 MB

**Nar 3G data card users:**

Bundle name	Price (monthly)	Traffic (24 hours)	Traffic (on-peak hours)	Traffic (off-peak hours)
TURBO S	4 AZN	1 GB		
TURBO M	8 AZN	5 GB		
TURBO L	12 AZN		8 GB	40 GB
TURBO XL	20 AZN		15 GB	40 GB

After reaching quota threshold, further usage will be charged in according to the selected tariff.

**Opera Mini!**

With Opera Mini, you can unlimitedly browse the web.

Bundle name	Price	Validity period
Opera Mini 1-day	0.15 AZN	24 hours
Opera Mini 30-days	1.50 AZN	30 days

This offer applies to only web browsing and does not include photo, audio or video streaming. For all kinds of downloading, a corresponding fee will be charged on the user's active Internet bundle or according to his or her current tariff.

Only pre-paid tariff subscribers can use Opera Mini service. This service is not available for use on data SIM-cards.

**3G Surveillance Camera**

A user can insert the SIM card into the camera purchased from Nar and make video calls to it directly from a video call capable 3G mobile phone. A user can then watch remotely after his or her house, office, or garage in day or night vision mode.

It is possible to control the camera remotely via mobile phone keys (up/down – 2/8 buttons, left/right – 4/6 keys, zoom in/zoom out – 3/1 keys) during the video call to the camera.

- 3G surveillance camera: 175 AZN
- Special SIM card: 6 AZN

**General Data tariff:**



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<b>Service</b>	<b>Price (in kopecks / ruble cent)</b>
Data (1 MB)	10 (25 cent)
SMS	6 (15 cent)
On-net MMS	10 (25 cent)
Off-net MMS	15 (37 cent)
Mobile TV (1 MB)	10 (25 cent)

100 Ruble = 2.45 Euro

1 Euro = 41 Rubble

## Coverage

3G network coverage:

- Baku
- Sumgait
- Absheron
- Gobustan
- Shirvan
- Ganja
- Mingachevir
- Nakhichevan
- Shaki
- Tovuz

If you move out of 3G coverage, the service will switch to GPRS (2G) or EDGE (2.5G) and the voice call or data session will not be interrupted.

## Sazz

Sazz service comprises of up to 10 mbit/s unlimited traffic for a fixed monthly rate. The connection speed remains stable irrespective of the traffic size used.

The WiMAX equipment have been imported under the agreement with ZTE.

The Company provides 5-day test period for subscribers wishing to connect to its services.

All modems have the following characteristics in common:

- OS: Windows XP, Windows Vist, Windows 7, MAC OS, Linux and Android

## WiMAX devices

<a href="#">Sazz WiMaxion</a>	140 AZN (incl. VAT)	
<a href="#">IX380 WiMAX Center</a> <i>Four RJ45 Ethernet interfaces ports</i>	120 AZN (incl. VAT)	
<a href="#">IX 350 WiMAX /WIFI Modem</a> <i>Standard: IEEE 802.16e-2005 Wave 2</i>	110 AZN (incl. VAT)	
<a href="#">IX 326 Sazz USB Modem</a> <i>Satandard: IEEE 802.16e-2005 Wave 2</i>	65 AZN (incl. VAT)	
<a href="#">WiFi Adapter MF10</a> <i>It gives the USB Modem users ability to create a local WiFi hotspot. It has 2 LAN/Ethernet ports and can create 5 Wi-Fi hosts</i>	55 AZN (incl. VAT)	

### Tariffs

The contract duration of bundles is not specified.

Bundle name	Price (monthly)	Download speed	Traffic
Standard Tariff	25 AZN	up to 10 Mb/s	unlimited
Corporate Tariff	30 AZN	up to 10 Mb/s	unlimited

### Coverage

Coverage area includes: Baku, the coastal areas of Absheron peninsula, Khirdalan, Sumgayit, Mingachevir, Ganja

Sazz had announced plans to extend its services to six more cities from the beginning of 2013. The cities include: Shaki, and Zaqatala in the northwest, Quba and Qusar in the north, and Masally and Lankaran in the south. The coverage area in Baku and Absheron peninsula is illustrated below:



Figure 5- Coverage Map for Sazz WiMAX

## WiMAX Tariffs



Bundle Name	Price	Traffic	Speed (Kbits/s) download/upload	Validity period
AET WiMAX 256	25 AZN	unlimited	256/256	7 days
AET WiMAX 512	30 AZN	unlimited	512/512	30 days
AET WiMAX 1024	40 AZN	unlimited	1024/512	30 says
AET WiMAX 1536	70 AZN	unlimited	1536/512	30 days

## Coverage

No information available

## CATEL

CATEL [said](#) in October 2003 that it had signed up 500 subscribers to its CDMA wireless service since launching commercially in the beginning of the year.

The network covers the capital Baku and the Absheron peninsula. CATEL had estimated at the time that it would have had 25,000 customers by 2004/05 and would invest USD 6 million in 2003.

Due to lack of information in the official website of CATEL, there is no way to confirm whether the given goals were met.

### Tariffs

No information is available.

### Coverage

Baku, Alat, Sangachal, Kurdemir, Udjar, Shirvan, Goychay, Mingechevir, Gandja, Shamkir, Agstafa, Balaken, Davachi, Nabran, Lenkaran, Astara, entire Absheron peninsula

CATEL is planning to cover Tovuz, Qazakh, Agsu, Quba.

## Products Comparison and Recommendations







Company	Company	Founded	Cellular Subscribers	3G	4G	CDMA	WiMAX	MiFi
Azercell	 Azercell	1996	4,240,000	●	◉			●
Bakcell	 bakcell	1994	2,600,000	●	◐			
Nar Mobile	 Nar	2007	2,000,000	●	◐			
Sazz	 sazz WiMAX TECHNOLOGIES	1995	N/A				●	
AzEuroTel	 AZ-EVRO TEL məhdud məsuliyyətli cəmiyyəti	1995	N/A				●	
CATEL	 CATEL		22,000			●		

Table 2- Summary of 3G Operators in Azerbaijan

- fully established
- ◉ established but in initial stage
- ◐ in process or in negotiation

As there are several offers available for different companies, for this report an offer comparison for each company's unlimited offer is provided.

Company	Bundle name	Max Speed (download/upload)	Threshold (for 3G speed)	Device Price	Price (monthly)
Azercell	Unlimited Internet	7.2 Mb/s 5.76 Mb/s	4 GB	Free	9 AZN
Bakcell	Sür@ Data Kart	21 Mb/s 5.2 Mb/s	7 GB	6 AZN	6 AZN
Nar Mobile	Unlimited Internet	1.2 Mb/s -	15 GB	Free	20 AZN

**Table 3- Product Comparison for Unlimited 3G Offers in Azerbaijan**

Azercell: After the traffic reaches to 4 GB the connection speed will drop to EDGE speed **128 kbit/s**  
 Bakcell: After the traffic reaches to 4 GB the connection speed will drop to EDGE speed **64 kbit/s**  
 Nar Mobile: After the traffic reaches to 4 GB the connection speed will drop to EDGE speed **128 kbit/s**

In the following table each company receives a score for each corresponding characteristics. Three stars means the best out of three and one star means worst among three companies.

As there is only one major WiMAX company in the market and it is planning to migrate from WiMAX to 3G technology, it has been excluded from this comparison table.

Company	3G Speed	3G Threshold	3G Coverage	4G	Variety of offers	Variety of devices	Cheap browsing/ Free Facebook	Price	Score
Azercell	**	*	***	***	**	***	**	**	18
Bakcell	***	**	***	*	***	**	***	***	20
Nar Mobile	*	***	**	*	***	*	**	*	14

**Table 4- Scoreboard for 3G Operators in Azerbaijan**

\*\*\* Best out of three  
 \*\* Moderate  
 \* Relatively worst

This comparison table by no means intends to recommend one company over another, as it depends on the needs of a potential subscriber.

For instance, although Bakcell outscores Azercell overall, for a moderate user whose monthly internet usage rarely exceeds 2 GB and whose main concern is the price, Azercell seems to be a more favoured option.

## Conclusion



This research shows that 3G technology is a developed technology in Azerbaijan which is still evolving.

There are three major players in the market with each over 2 millions subscribers base.

Azercell has the largest cellular subscribers base and the only company offering 4G services. While Bakcell pride itself on being the first cellular operator in the country, Nar Mobile boasts about being the first cellular company to have offered 3G services. Nevertheless, no company fully dominates wireless internet market and the competition is fierce.

The focus of this competition is development of 3G networks by Azercell, Bakcell, and Nar mobile and also initiating the 4g network by Bakcell and Nar mobile. On the other hand, the WiMAX market seems to be a quiet market in which the only major company intends to leave it for 3G technologies.